

REMARKS

Claims 1 – 4, 6 – 10, 16 – 19 and 21 – 34 are pending in this application.

Claims 1 – 4, 6 – 10, 16 – 19 and 21 – 34 have been rejected.

Claims 7, 16, 21 and 26 are currently amended.

Oath/Declaration

The declaration has been rejected under 37 CRF 1.67(a) as being defective. A new declaration is submitted herewith which applicant respectfully submits cures the defect.

Amendments to the Claims

Claims 7, 16, 21 and 26 have been amended to correct an error with antecedent basis. The word “predetermined” has been removed from “first predetermined characteristics” and “second predetermined characteristics” to make those phrases consistent with the earlier established phrases “first characteristics” and “second characteristics.” No new matter has been added.

Claim 16 has been further amended rewrite the claim in independent form by incorporating the subject matter of claim 1, from which claim 16 depended. No new matter has been added.

Rejections Under 35 U.S.C. § 112

Claims 7 – 10, 16 – 19 and 21 – 26 have been rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 7, 16, 21 and 26 have been amended to remove the word “predetermined” in the phrases “first predetermined characteristics” and “second predetermined characteristics”, thereby correcting all issues with antecedent basis in those claims. Claims 8 – 10, 17 – 19 and 22 – 25 depend from claims 7, 16 and 21, respectively. Thus, it is respectfully submitted that the basis for the rejection of claims 7 – 10, 16 – 19 and 21 – 26 under USC § 112, second paragraph has been cured and the rejection should be withdrawn.

Rejections Under 35 U.S.C. § 102

Claims 1 – 3, 6 – 9, 27 – 29 and 31 – 33 have been rejected under 35 USC § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0087091 (“Koyrakh ‘091”). These rejections are respectfully traversed.

Koyrakh ‘091 discloses an automated template generation algorithm for an implantable device. An implantable medical device has a coronary sinus lead and a right ventricular lead have electrodes that may be used to detect electrical activity in the ventricles (paragraphs [0021 – 0022]). Electronics in the implantable medical device control sensing and pacing functions (paragraphs [0024] – [0029]). The electronics can, based on sensed information, develop a template for operation of the implantable medical device (paragraph [0045] – [0047]). Based on the R-R interval, the electronics determine whether a heartbeat is normal – if the interval is less than 600ms, or it was a paced beat, the beat is not normal, while if the interval is greater than 600ms, the beat is normal (paragraph [0046]). The process continues until six normal beats have been collected (paragraph [0047]). After six beats have been collected, five cross-matches are established, and determinations are made as to whether or not the beats of each cross-match are sufficiently similar that they are within a certain threshold (paragraph [0047]). If four or more of the cross-matches are sufficiently similar, the four or more cross-matches are utilized as the template (paragraph [0047]).

But Koyrakh ‘091 does not show, disclose or suggest determining whether first consecutive events have first characteristics, and then identifying, as first selected events, a predetermined number of events subsequent to the first consecutive events that have second characteristics, and generating the template only from the first selected events, wherein the first characteristics are ventricular sensed events having R-R intervals greater than a threshold interval. In other words, the template is formed from events that occur after the first characteristics are verified, and the events that contribute to the first characteristics are not utilized. Koyrakh ‘091 specifically utilizes all sensed events.

By contrast, claims 1, 27 and 31 recite sensing a plurality of events, determining whether there are first consecutive events of the plurality of events having first

characteristics, and identifying a predetermined number of events of the plurality of events subsequent to the first consecutive events having second characteristics as first selected events (claim 1, lines 3 – 8; claim 27, lines 2 – 7; claim 31, line 3 – 8). A template is generated only from the first selected events (claim 1, line 9; claim 27, line 8; claim 31, line 9). By contrast, Koyrakh '091 specifically discloses utilizing all sensed events that correspond to “normal” beats.

Koyrakh '091 does not show, disclose or suggest all of the subject matter of claims 1, 27 and 31. Thus, it is respectfully submitted that the rejection of claims 1, 27 and 31 under 35 USC § 102(b) as being anticipated by Koyrakh '091 is improper and should be withdrawn.

Claims 2, 3 and 6 – 9 depend from claim 1, claims 28 and 29 depend from claim 27, and claims 32 and 33 depend from claim 31, and as such incorporate all of the subject matter of the claims from which they depend. In addition, claims 2, 3, 6 – 9, 28, 29, 32 and 33 recite additional patentable subject matter. Because the rejection of claims 1, 27 and 31 is improper, and because claims 2, 3, 6 – 9, 28, 29, 32 and 33 recite additional patentable subject matter, it is respectfully submitted that the rejection of claims 2, 3, 6 – 9, 28, 29, 32 and 33 under 35 USC § 102(b) as being anticipated by Koyrakh '091 is improper for the same reasons and should be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 3, 4, 29, 30, 33 and 34 have been rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0087091 (“Koyrakh '091”). These rejections are respectfully traversed.

The discussion of Koyrakh '091 and of claims 1, 27 and 31 above is incorporated in its entirety.

Claims 3 and 4 depend from claim 1, claims 29 and 30 depend from claim 27, and claims 33 and 34 depend from claim 31, and as such incorporate all of the subject matter of the claims from which they depend. In addition, claims 3, 4, 29, 30, 33 and 34 recite additional patentable subject matter. Because Koyrakh '091 does not show, disclose or

suggest all of the subject matter of claims 1, 27 and 31, claims 1, 27 and 31 should not be rejectable under 35 USC § 103(a) as being unpatentable over Koyrakh '091. Thus, because claims 3, 4, 29, 30, 33 and 34 incorporate all of the subject matter of claims 1, 27 and 31, and because claims 3, 4, 29, 30, 33 and 34 recite additional patentable subject matter, it is respectfully submitted that the rejection of claims 3, 4, 29, 30, 33 and 34 under 35 USC § 103(a) as being unpatentable over Koyrakh '091 is improper and should be withdrawn.

Allowable Subject Matter

Applicant notes with appreciation the indication of allowable subject matter in claims 16 – 19 and 21 – 26, and further notes that, in view of the amendments to claims 16 and 21, all of claims 16 – 19 and 21 – 26 are now in compliance and should be in condition for allowance.

Summary

In view of the amendments and arguments presented, claims 1 – 4, 6 – 10, 16 – 19 and 21 – 34 should be allowable. This application should be in condition for allowance and a notice to that effect is earnestly solicited.

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Respectfully Submitted,

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